A trans-Atlantic assessment and deep-water ecosystem based spatial management plan for Europe

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Biodiversity and benthic megafaunal communities inhabiting the Formigas Bank (NE Azores)

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The Formigas Bank is an offshore seamount located in the easternmost part of the Azores archipelago (northeast Atlantic). It rises from abyssal depths to the surface, including a small set of islets. The bank holds multiple nature conservation designations, including a Natura 2000 Special Area of Conservation, an OSPAR Marine Protected Area, a RAMSAR site and a Nature Reserve declared under the Azores network of protected areas. The protection is based on the presence of sublittoral biotopes of high conservation interest, and importance as feeding grounds, spawning and nursery areas for many marine species, including fish, cetaceans and turtles. Although some information exists on the sublittoral communities occurring on the seamount summit (e.g., infralittoral *Cystoseira* and *Laminaria* beds, circalittoral hydrarian and sponge gardens, rich pelagic fauna), virtually no information was available on the deep-sea communities inhabiting the seamount flanks. Therefore, during the MEDWAVES cruise, the flanks of the Formigas bank have been surveyed using multibeam sonar, an ROV and oceanographic profiles, with the objective to characterise deep-sea biodiversity and megafaunal communities as well as the environment where they occur. This communication will present results from the video annotations of the ten dives made on the seamount slopes between ~500m and ~1,500 m depth. Diverse communities of sedentary suspension-feeding organisms were observed, with more than 20 cold-water coral species (mainly octocorals) being recorded, as well as many different sponge morphotypes. Dense coral garden habitats and sponge grounds were identified on several occasions, confirming the presence of *vulnerable marine*